

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC**

|                                     |   |          |
|-------------------------------------|---|----------|
| In the Matter of                    | ) |          |
|                                     | ) |          |
| Petition To Adopt Service Rules for | ) | RM-11798 |
| Unmanned Aircraft Systems (“UAS”)   | ) |          |
| Command and Control in the          | ) |          |
| 5030-5091 MHz Band                  | ) |          |

**COMMENTS OF RAYTHEON COMPANY**

Raytheon Company (“Raytheon”), by its attorney, hereby submits its comments in support of the Petition for Rulemaking (“Petition”) of the Aerospace Industries Association (“AIA”) which asks the Commission to adopt licensing and service rules for Control and Non-Payload Communications (“CNPC”), i.e., command and control (“C2”), for Unmanned Aircraft Systems (“UAS”) in the 5030-5091 MHz band.<sup>1</sup>

Raytheon Company is a technology and innovation leader specializing in defense, civil government and cybersecurity solutions. Founded in 1922 and headquartered in Waltham, Massachusetts, Raytheon provides state-of-the-art electronics, mission systems integration, C5I™ products and services, sensing, effects and mission support services. Building on decades of experience in propulsion, guidance, aerodynamics, communications, and sensors, Raytheon is at the forefront of the development of a variety of advanced UAS, also known as unmanned aerial vehicles, or UAVs. Raytheon UAVs will support both Federal government users and commercial and state and local government operators. Critical to the effective operation of these UAS will be effective and efficient access to spectrum for C2 purposes.

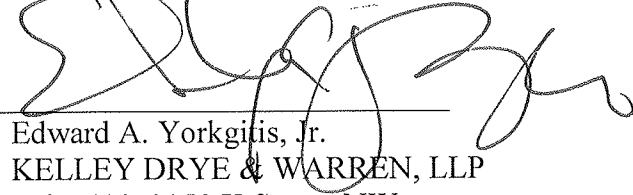
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<sup>1</sup> See AIA, Petition for Rulemaking, RM-11798 (filed Feb. 8, 2018). See also Public Notice, Petition for Rulemaking Filed, Report No. 3089 (CGSB, Reference Information Center, (rel. April 26, 2018) (“Public Notice”).

As the Petition notes, 5030-5091 MHz is shared with both Federal and non-Federal users. The regulatory framework for access to the band for C2 purposes must maximize spectrum efficiency and ensure effective coordination among all users.<sup>2</sup> As the Petition notes, the National Telecommunications and Information Administration (“NTIA”) must coordinate all affected Federal stakeholders to develop a framework to authorize UAS C2 operations by Federal users that dovetails with that implemented by the FCC for non-federal UAS. Accordingly, each framework must account for both non-Federal and Federal operations, making a single mechanism potentially the most efficient. Raytheon believes that the regulatory framework described in AIA’s Petition, building upon work of the RTCA Special Committee 228 to develop Minimum Operational Performance Standards to support UAS operations within the national airspace, is a good starting point for consideration of CNPC licensing, operational, and spectrum access rules for UAS. Accordingly, Raytheon supports the prompt granting of the AIA Petition and the commencement of a proceeding to adopt rules that facilitate access by non-Federal UAS to 5030-50921 MHz for command and control operations in a coordinated fashion with access by non-Federal systems.

Respectfully submitted,

**RAYTHEON COMPANY**



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<sup>2</sup> Petition at 7, n. 19.